BMP Potential Sedimentation Trend Analysis: March 2006

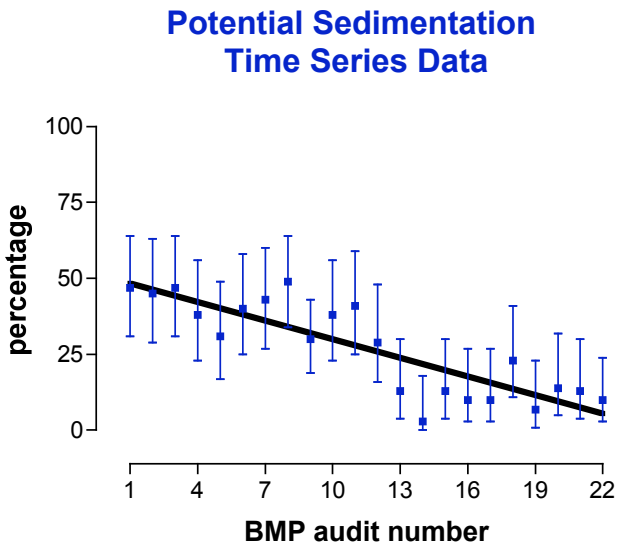
Potential sedimentation is a measure identifying conditions likely to initiate sediment delivery to a nearby stream or other water body, as a consequence of not implementing all necessary BMP to the standards specified by VDOF. The question asked is: Does the potential exist for sediment from surface runoff to develop due to not meeting Virginia Department of Forestry technical specifications (yes or no)? Field observation of exposed soil adjacent to a stream or water body and other indicators suggesting erosion and sediment deposition are imminent yields a positive evaluation (yes) in this category. Observed field conditions such as inadequate BMP near a water body, exposed mineral soil or erosion adjacent to a water body, are needed in order to receive a positive (yes) evaluation. The quantity of potential sediment is not evaluated, only evidence that landscape conditions are conducive to initiating the process if rainfall occurs.

The table below lists the percentage of sites that received a positive evaluation (yes) in the potential sedimentation category. These data and confidence intervals are plotted on the graph. The black trend line shows that potential sedimentation has decreased over time [1]

Potential Sedimentation Trend: $r^2 = 0.7216$, deviation of the regression line from 0 slope is statistically significant**.**

Potential Sedimentation Trend

Date	Percentage	Upper 95% CI	Lower 95% CI
Nov-93	47%	64%	30%
Jun-94	45%	62%	28%
Nov-94	47%	64%	30%
Jun-95	38%	56%	23%
Dec-95	31%	49%	17%
Jun-96	40%	58%	25%
Nov-96	43%	61%	27%
Jun-97	49%	64%	33%
Nov-98	30%	43%	19%
Oct-99	38%	56%	23%
Jun-00	41%	59%	26%
Nov-00	29%	47%	15%
Jul-01	13%	30%	5%
Nov-01	3%	18%	0%
Jun-02	13%	30%	5%
Nov-02	10%	27%	3%
Jun-03	10%	27%	3%
Nov-03	23%	41%	12%
Jun-04	7%	23%	1%
Nov-04	14%	31%	5%
Jun-05	13%	30%	5%
Nov-05	10%	24%	3%



[1] A linear regression of these data yields a negative, downward sloping, trend that is statistically significant, as represented by the black line. This means that the downward slope of the regression line is statistically different from a line with a zero slope